AMENDMENTS IN THE CLAIMS:

Claims 1-2. (Canceled)

3. (Currently Amended) An oral or rectal [[A]] pharmaceutical composition comprising core-shell particles and a pharmaceutically acceptable excipient, said core-shell particles comprising a core component and a shell component, the core component comprising a potassium-binding cation exchange polymer, the shell component comprising a crosslinked polymer having a permeability for potassium ion that is higher than the permeability for a competing cation, and having a thickness ranging from about 0.002 microns to about 50 microns, the shell component being essentially not disintegrated during residence and passage through the gastro-intestinal tract of an animal subject.

4. (Previously Presented) The pharmaceutical composition of claims 3 or 53 wherein said core-shell particles bind potassium ion and retain bound potassium ion during residence and passage through the gastrointestinal tract of a human subject, such that potassium ion is removed from the gastrointestinal tract of the human subject by the core-shell particles to obtain a therapeutic and/or prophylactic benefit.

Claims 5-13. (Canceled)

14. (Previously Presented) The pharmaceutical composition of claim 3 wherein said permeability of said shell component polymer to said potassium ion is independent of said permeability of said shell component to said competing cation.

15. (Previously Presented) The pharmaceutical composition of claim 3 wherein said core component is physically or chemically attached to said shell component.

Claims 16-17. (Canceled)

18. (Previously presented) The pharmaceutical composition of claim 3 wherein said shell component polymer exhibits greater interaction with said competing cation compared to said potassium ion.

19. (Previously Presented) The pharmaceutical composition of claim 3 wherein said shell component polymer repels said competing polymer by ionic interaction.

20. (Canceled)

21. (Previously Presented) The pharmaceutical composition of claim 3 wherein said core-shell particle is about 200 nm to about 2 mm in size.

Claims 22-28. (Canceled)

29. (Previously Presented) The pharmaceutical composition of claim 3 wherein said shell component is deposited with a coating process.

30. (Previously Presented) The pharmaceutical composition of claim 3 or 53 wherein said pharmaceutical composition further comprises an enteric coating.

Claims 31-33. (Canceled)

34. (Previously Presented) A method of treating an animal subject suffering from a disease selected from the group consisting of renal insufficiency, renal failure, end stage renal disease (ESRD) and combinations thereof, comprising administering to an animal subject in need thereof an effective amount of the pharmaceutical composition of claim 3 or 53.

Claims 35-39. (Canceled)

40. (Previously Presented) A method of treating an animal subject suffering from hyperkalemia comprising administering to an animal subject in need thereof an effective amount of the pharmaceutical composition of claim 3 or 53.

Claims 41-50. (Canceled)

51. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 3 or 21 wherein said shell component polymer has a thickness ranging from about 0.005 μm to less than about 10 μm.

52. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 3 or 21 wherein said shell component polymer has a thickness ranging from more than about 1 μm to less than about 10 μm.

53. (Currently Amended) An oral or rectal [[A]] pharmaceutical composition comprising core-shell particles and a pharmaceutically acceptable excipient, said core-shell particles comprising a core component and a shell component, the core component comprising a potassium-binding cation exchange polymer, the shell component comprising a crosslinked polymer having a permeability for potassium ion that is higher than the permeability for a competing cation, the weight ratio of the shell component polymer to the core component polymer ranging from about 0.0001:1 to about 0.5:1, the shell component being essentially not disintegrated during residence and passage through the gastro-intestinal tract of an animal subject.

54. (Previously Presented) The pharmaceutical composition of claim 53 wherein the weight ratio of the shell component polymer to the core component polymer ranges from about 0.002:1 to about 0.1:1.

55. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 3 or 53 wherein the core component comprises a crosslinked cation-exchange polymer.

56. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 3 or 53 wherein the core component comprises a cation-exchange polymer comprising acidic functional groups.

57. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 3 or 53 wherein the core component comprises a cation-exchange polymer comprising functional groups selected from the group consisting of carboxylate, phosphonate, sulfate, sulfonate, sulfamate and combinations thereof.

58. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 3 or 53 wherein the shell component comprises a crosslinked synthetic polymer.

59. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 3 or 53 wherein the shell component comprises a polymer produced by polymerization of an ethylenic monomer.

60. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 3 or 53 wherein the shell component comprises a polymer produced by polymerization of a vinylic monomer.

61. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 3 or 53 wherein the shell component comprises a polymer produced by polymerization of an acrylic or methacrylic monomer.

62. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 3 or 53 wherein the shell component comprises a hydrophobic polymer, and is essentially not disintegrated during residence and passage of the core-shell particles through the gastro-intestinal tract of a human subject, and wherein the core-shell particles bind potassium ion and retain bound potassium ion during residence and passage through the gastrointestinal tract of the human subject, such that potassium ion is removed from the gastrointestinal tract of the human subject by the core-shell particles to obtain a therapeutic and/or prophylactic benefit.

63. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 4 wherein the core-shell particles retain at least about 50% of the bound potassium ion with the core-shell particles during residence and passage of the core-shell particles through the gastro-intestinal tract.

64. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 4 wherein the core-shell particles retain at least about 75% of the bound potassium ion with the core-shell particles during residence and passage of the core-shell particles through the gastro-intestinal tract.

65. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 4 wherein the core-shell particles selectively bind potassium ion over the competing cation during residence and passage of the core-shell particles through the gastro-intestinal tract.

66. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 4 wherein the human subject is suffering from renal insufficiency.

67. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 4 wherein the human subject is suffering from renal failure.

68. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 4 wherein the human subject is suffering from end stage renal disease (ESRD).

69. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 4 wherein the human subject is a dialysis patient.

70. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 4 wherein the human subject is suffering from hyperkalemia.

71. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 3 or 53 wherein the shell component is hydrophobic.

72. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 3 or 53 wherein the core component comprises a crosslinked cation-exchange polymer comprising acidic functional groups, and the shell component comprises a crosslinked synthetic polymer.

73. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 72 wherein the shell component is hydrophobic.

74. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 72 wherein the shell component comprises a polymer produced by polymerization of a vinylic monomer.

75. (Currently Amended) The pharmaceutical composition ~~invention~~ of claim 72 wherein the shell component comprises a polymer produced by polymerization of an acrylic or methacrylic monomer.

76. (New) The pharmaceutical composition of claim 3 or 53 wherein the oral pharmaceutical composition is in the form of a powder, tablet, capsule, solution, or emulsion.